G-E Campus News

4400 TIMES HIS OWN WEIGHT

A MAN could lift four 100-ton freight cars if he were proportionately as strong as a new Alnico magnet assembly recently developed in the General Electric Research Laboratory.

The greatly increased strength of the new magnet is due to a special mounting, which permits the magnetic flux to pass through many air gaps instead of the usual two in bridging from pole to pole. This makes possible a more efficient utilization of the magnetic energy. In recent laboratory tests a magnet weighing only one quarter of an ounce was able to support 69 pounds—about 4400 times its own weight. This new development, although not yet commercially available, broadens the field of permanent magnet applications.

TWO OUT OF TWENTY

IN his selection of the 20 outstanding men and women of 1939, Durward Howes, editor of "America's Young Men," honored two General Electric leaders: Philip D. Reed and Katharine B. Blodgett.

Mr. Reed has been with General Electric since 1926. He received his engineering degree from Wisconsin in 1921 and his law degree from Fordham University three years later. In 1937 he became the assistant of Gerard Swope, President of General Electric. Mr. Reed is now Chairman of the Board of Directors.

Miss Blodgett was graduated from Bryn Mawr in 1917, received her M.S. degree from the University of Chicago, and spent the next six years in the General Electric Research Laboratory in Schenectady. In 1924 and 1925 Dr. Blodgett studied at the Cavendish Laboratory in Cambridge, England, where she received the degree of Doctor of Philosophy. Returning to the G-E Research Laboratory, she has since been engaged in the study of molecular films.

2,000,000 HORSES

EVEN in its heyday the Wild West would hardly have tried stopping a stampede of 2,000,000 horses. Yet the job of stopping 2,000,000 horsepower of electric energy has been assigned to the General Electric breakers installed at Boulder Dam, and they do the job in 1/20 of a second. And the relays which trip these breakers are even more versatile, for it takes them only 1/200 of a second to locate trouble and trip the proper breaker.

The power developed at Boulder Dam is carried to Los Angeles at 287,000 volts—the highest voltage in the world in regular service. Two transmission lines, running side by side, are used to span the 380 miles. To protect these lines required the development of circuit breakers capable of interrupting one and a half million kilowatts of power.

Student engineers, recent college graduates taking the G-E Test Course, had the responsibility of testing these circuit breakers in the Philadelphia Works of General Electric.

GENERAL ELECTRIC

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